

WHAT IS CLAIMED IS:

1. A low noise down-converter for satellite broadcast receiving, comprising a mixer converting a received high-frequency signal into an intermediate-frequency signal,

said mixer including

5

a transistor performing frequency conversion,

a first bipolar transistor having an emitter connected to a drain of said transistor and a collector connected to a gate of said transistor, and

a temperature characteristic compensating circuit connected to a base of said first bipolar transistor and canceling a temperature

10

characteristic of said first bipolar transistor.

2. The low noise down-converter according to claim 1, wherein

said temperature characteristic compensating circuit includes a

second bipolar transistor having a conductive terminal connected to the base of said first bipolar transistor.

3. The low noise down-converter according to claim 2, wherein said

first and second bipolar transistors are packaged into a dual transistor.